

This case illustrates how Chiari malformations may present at any age and should be considered even in septuagenarians. The onset of symptoms in the eighth decade is extremely unusual, but presentation at the age of 74 has been reported in one case.³ Symptoms may precede diagnosis by several years,¹ as in this patient. However, it is unclear why a congenital malformation should suddenly become symptomatic. Several reports have highlighted the role of trauma,⁴ degenerative changes in the cervical spine and cerebrovascular disease that may also contribute to neurological deterioration.

Palatal paresis, dysphagia, diplopia and ataxia are well recognised symptoms of type 1 Arnold-Chiari malformations,^{1,2} and recent reports have highlighted the respiratory problems that these patients may encounter.^{5,6} The presence of downbeat nystagmus strongly implied an abnormality at the cranio-cervical junction and this was confirmed, non-invasively, by MR imaging.

Despite their ages both our patient and the one reported by Hosford and Spector³ made a good recovery following surgical decompression showing that age alone should not be regarded as a barrier to active management.

DMG HALPIN,
P TREND,
L SYMON*,
AE HARDING

University Department of Clinical Neurology
and the Gough Cooper Department
of Neurological Surgery,*
National Hospital for Nervous Diseases,
Queen Square, London WC1N 3BG,
United Kingdom

- Mohr PD, Strang FA, Sambrook MA, Boddie HG. The clinical and surgical features in 40 patients with primary cerebellar ectopia (adult Chiari malformation). *Q J Med* 1977;46:85-96.
- Paul KS, Lye RH, Strang FA, Dutton J. Arnold-Chiari malformation. Review of 71 cases. *J Neurosurg* 1983;58:183-7.
- Hosford DA, Spector RH. Arnold-Chiari malformation in a geriatric patient. *South Med J* 1985;78:618-21.
- Spillane JD, Pallis C, Jones AM. Developmental abnormalities in the region of the foramen magnum. *Brain* 1957;80:11-48.
- Fish DR, Howard RS, Wiles CM, Symon L. Respiratory arrest: a complication of cerebellar ectopia in adults. *J Neurol Neurosurg Psychiatry* 1988;51:714-6.
- Bullock R, Todd NV, Easton J, Hadley D. Isolated central respiratory failure due to syringomyelia and Arnold-Chiari malformation. *Br Med J* 1988;297:1448-9.

as Ramsay Hunt syndrome. Review and restudy of this material established the diagnosis of mitochondrial encephalomyopathy (MERRF) in 11 of the 13 cases; the remaining two cases were not available for reexamination.³⁻⁵ Those who wish to preserve the Ramsay Hunt syndrome differ widely in their concept of the disorder,^{6,7} which only reinforces our view that the term should be buried.

Tassinari *et al* recently reported a series of 13 patients with "Ramsay Hunt syndrome" who had onset of myoclonic or tonic-clonic seizures at ages 6 to 15 years with a mild cerebellar syndrome. Family studies suggested autosomal recessive inheritance and muscle biopsies failed to show evidence of mitochondrial disease.⁷ Tassinari's patients are different from the cases that we reclassified as MERRF and we agree that they do not have mitochondrial disease. The clinical, electroencephalographic and genetic features of their patients are, however, identical to those of Unverricht-Lundborg disease (Baltic myoclonus) as described by the original authors and more recently in the definitive studies of Koskiniemi.⁸⁻¹⁰ There is no doubt that this disorder occurs outside the Baltic region.^{2,11} Although there is as yet no diagnostic laboratory marker for Unverricht-Lundborg disease, the clinical picture is distinctive and a clinical diagnosis can be made with considerable certainty.^{2,10,11} We find the use of the term "Ramsay Hunt syndrome" for such patients is historically inaccurate and diagnostically misleading.

Tassinari *et al* have emphasised the electroencephalographic features of their patients with normal or mildly slow waking background activity, fast spike-wave discharges, photosensitivity and lack of activation during slow wave sleep.⁷ These findings are no different from those of Unverricht-Lundborg disease.¹² Indeed, critical study of the EEG patterns in all the PME, including MERRF and Unverricht-Lundborg disease, reveals more similarities than differences.¹³ Tassinari *et al*, have also described vertex spikes during REM sleep.^{7,14} Unfortunately, REM studies of Unverricht-Lundborg disease have not been reported. These spikes are, however, also seen in MERRF¹⁵ and we suspect they may be common to all the PMEs, much like giant evoked potentials, which they may in fact represent.

Unlike the situation previously, the vast majority of patients with PME can now be accurately diagnosed during life.² Whilst occasional undiagnosed patients remain, there is no residual homogeneous group of cases for which the term Ramsay Hunt syndrome is appropriate. Radermecker's frustration at attempting to define the Ramsay Hunt syndrome¹ can at last be put to rest. In retrospect it was a true syndrome, with many causes, although we suspect that most reported cases were probably examples of MERRF. Its value as a clinical category has been overtaken by clinical, genetic, biochemical and pathological advances in specific diagnosis.²

(We) come to bury . . . , not to praise . . .

SAMUEL F BERKOVIC*†
FREDERICK ANDERMANN*

*Department of Neurology,
Austin Hospital, Melbourne,
Victoria 3084, Australia.

†Montreal Neurological Institute and
Hospital, Montreal, Quebec H3A 2B4,
Canada.

- Radermecker J. Epilepsy in the degenerative diseases. In: Vinken PJ, Bruyn GW (eds). *Handbook of Clinical Neurology*, vol 15. Amsterdam: North Holland, 1974:325-72.
- Berkovic SF, Andermann F, Carpenter S, Wolfe LS. Progressive myoclonus epilepsies: specific causes and diagnosis. *N Engl J Med* 1986;315:296-305.
- Berkovic SF, Andermann F, Karpai G *et al*. Mitochondrial encephalomyopathies: a solution to the enigma of the Ramsay Hunt syndrome. *Neurology* 1987;37 (suppl):125.
- Andermann F, Berkovic S, Carpenter S, Andermann E. The Ramsay Hunt syndrome is no longer a useful diagnostic entity. *Movement Disorders* 1989;4:13-17.
- Berkovic SF, Carpenter S, Evans A, *et al*. Myoclonus epilepsy and ragged-red fibers (MERRF): a clinical, pathological, biochemical, magnetic resonance spectroscopic and positron emission tomographic study. *Brain* 1989;112:1231-60.
- Marsden CD, Obeso JA. The Ramsay Hunt Syndrome is a useful clinical entity. *Movement Disorders* 1989;4:6-12.
- Tassinari CA, Michelucci R, Genton P, Pellissier JF, Roger J. Dyssynergia cerebellaris myoclonica (Ramsay Hunt syndrome): a condition unrelated to mitochondrial encephalomyopathies. *J Neurol Neurosurg Psychiatr*, 1989;52:262-5.
- Koskiniemi M, Donner M, Majuri H, Haltia M, Norio R. Progressive myoclonus epilepsy: a clinical and histopathological study. *Acta Neurol Scand* 1974;50:307-32.
- Norio R, Koskiniemi M. Progressive myoclonus epilepsy: genetic and nosological aspects with special reference to 107 Finnish patients. *Clin Genet* 1979;15:382-98.
- Koskiniemi ML. Baltic myoclonus. *Adv Neurol* 1986;57:64.
- Eldridge R, Iivanainen M, Stern R, Koerber T, Wilder BJ. "Baltic" myoclonus epilepsy: hereditary disorder of childhood made worse by phenytoin. *Lancet* 1983;1:838-42.
- Koskiniemi M, Toivakka E, Donner M. Progressive myoclonus epilepsy: electroencephalographic findings. *Acta Neurol Scand* 1974;50:333-59.
- So N, Berkovic SF, Andermann F, Kuzniecky R, Gendron D, Quesney LF. Myoclonus epilepsy and ragged-red fibers (MERRF). Electrophysiological studies and comparison with the other progressive myoclonus epilepsies. *Brain* 1989;112:1261-76.
- Tassinari CA, Bureau-Pailas M, Dalla Bernardina B, Grasso E, Roger J. Etude électro-encéphalographique de la dyssynergie cérébelleuse myoclonique avec épilepsie (syndrome de Ramsay Hunt). *Rev Electroencephalogr Neurophysiol Clin* 1974;4:407-28.
- Roger J, Pellissier JF, Dravet C *et al*. Dégénérescence spino-cérébelleuse-atrophie optique-épilepsie-myoclonies-myopathie mitochondriale. *Rev Neurol (Paris)* 1982;138:187-200.

Tassinari *et al* reply:

We thank Drs Berkovic and Andermann for the kind comments they made on our recent paper.¹ We are glad to know that the patients previously referred to as Ramsay Hunt syndrome (RHS) by these authors and subsequently found to have a mitochondrial encephalopathy (MERRF) were significantly different from those we have described under the eponym of RHS. This fact supports our statement that RHS and MERRF exhibit different clinical, EEG and evolutive features.

Drs Berkovic and Andermann however criticise the term RHS applied to our cases. In these patients the main clinical complaint was action myoclonus combined with rare generalised epileptic seizures: indeed this association was described by Ramsay Hunt under the heading of "Dyssynergia Cerebellaris Myoclonica".² Ramsay Hunt also emphasised the coexistence of "cerebellar ataxia" but, in such cases, the cerebellar component is difficult to define because of the presence of severe intention myoclonus, as recently pointed out by Harding.³ Thus, in our opinion, the use of the term RHS for our patients is justified,

MATTERS ARISING

Ramsay Hunt syndrome: to bury or to praise

"If there is one disease in the neurological literature that is difficult to define and demarcate, it is the cerebellar dyssynergia of Ramsay Hunt." Radermecker, 1974.¹

Our recent suggestion that the Ramsay Hunt syndrome (dyssynergia cerebellaris myoclonica) is no longer a useful diagnostic category²⁻⁵ has provoked considerable controversy.^{6,7} We reached this conclusion following a study of 84 cases of progressive myoclonus epilepsy (PME), of which 13 were previously regarded